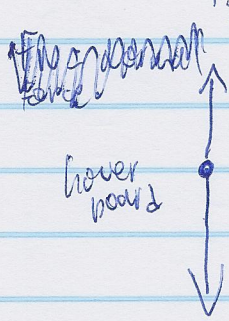
IGCSE Project 1.

Study Strategies.

physics.

centre of gravity is assumed.
Isolated system

Assume mass = 100kg.
80 for person 20 for board
$g = 9.8\ m.s^{-2}$



Thrust = 980 N + ...

gravity = force exerted by Earth on hover board. $F = mg$ $\therefore F = 100 \times 9.8 = 980N$

hover Thrust = 980 N ($kg.s^{-2}$) $\therefore a = 0$.

It should hover 0,5 M off the ground.

$\therefore E_K = 0$. $E_P = mgh$.

$\therefore E_P = (100)(9.8)(0,5)$

$= 490J$.

$F = ma$. then acc to specific height.

See Aerodynamics.